## USIBWC EVALUATES RIO GRANDE FLOOD OPERATIONS

The United States Section of the International Boundary and Water Commission (USIBWC) is reviewing the operation of its Upper Rio Grande Flood Control Project in the greater El Paso area following flooding that occurred during the week of July 31 and, to a much lesser extent, on August 16. United States flood control levees successfully contained the floodwaters that resulted from intense rainstorms.

During the flooding, Rio Grande water overflowed the banks of the low-flow channel and inundated the floodplain just as the flood control system is designed to perform. Inundation of the floodplain poses no threat to property as this area is kept free from development in order to convey floodwaters safely. In most areas of the Upper Rio Grande Flood Control Project in Southern New Mexico and West Texas, the floodplain is flanked by levees, raised earthen structures that prevent the floodwaters from inundating developed areas. Although the river was considered to be in flood, the effects of the flood were contained due to the successful performance of the levees.

At American Dam, a USIBWC diversion dam near Asarco on El Paso's west side, over 8 inches of rain fell between July 29 and August 5, including 4.5 inches on August 1. The river's peak flow of 9,923 cubic feet per second (cfs) was experienced below American Dam on the afternoon of August 1. By comparison, on the same date in 2005, the flow at that point was 177 cfs. The 2006 flood was the highest peak flow recorded in the river at the station below American Dam since 1958 when flow volume reached 11,301 cfs.

Speaking of the August 1 event, Acting Commissioner Carlos Marin of the USIBWC said, "This was an unprecedented storm. I am proud of Commission employees for their efforts during the flood and I am pleased that our levee system worked as intended."

To ensure the successful operation of the flood control infrastructure, personnel from the USIBWC's Upper Rio Grande Project initiated round-the-clock flood operations on the morning of August 1, operating the gates of the dam and mobilizing personnel and equipment to patrol and repair the United States levee. USIBWC staff also coordinated with the El Paso County Water Improvement District #1 and the Hudspeth County Irrigation District to block irrigation ditches affected by water in the river. Although the peak flows rapidly subsided in El Paso, levee patrols continued through August 5 as the flood wave moved downstream into Hudspeth County. During the flood, the USIBWC and Mexican Section of the Commission were in constant contact, providing information on river levels and flow rates, flood warnings, and other forecasts.

The August 1 flows were close to the maximum volume that the levee system is designed

to handle, approximately the 100-year flood. As designed, the levees should have 2 feet of freeboard (the distance between the water surface elevation and the top of the levee). In some areas through the Chamizal Project in Central El Paso-Cd. Juarez, the levees only had inches of freeboard, indicating a potential risk of the river overtopping the levees.

A second round of high water, causing some overbank flow, was experienced August 15-17 following storms upstream and in El Paso. On August 16, USIBWC hydrographers measured a flow of 5,262 cfs near the peak at the Canutillo gaging site. As with the earlier storm, the flood control levees successfully contained the river. By August 17, the river had dropped considerably.

Following the early August storms, the USIBWC also coordinated with the Mexican Section of the Commission and local interests in Texas and El Paso to address issues associated with La Montada Dike in Cd. Juarez, which was overflowing and risked potential collapse. Mexican officials have implemented emergency measures to drain and divert water from the dike, minimizing the chance that it will fill up and be at risk of failure from future storms.

The USIBWC is reviewing its operations and data collected from the storms in order to consider improvements in the event of future floods. Improved coordination with the irrigation districts to control flows into the drains is one area requiring attention. The Congressional delegation has consulted with the USIBWC regarding proposed levee improvements to provide greater flood protection for interests along the river.

"These floods were a wake up call to many people who live in the desert," said Acting Commissioner Marin. "It reminds us of the importance of supporting flood control infrastructure in our community."

For more information:

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